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Patient Credulousness as a Deterrent of Complaining Behaviour

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ABSTRACT

Credulousness as defined in the Merriam-Webster dictionary is 'the readiness to believe the claims of others without sufficient evidence'. As patients have a tendency to believe their health service provider too readily, there are chances of being easily deceived. Hence, it was pertinent to analyze the intensity of patient credulousness in this study. Patient credulousness, through phenomenological research, was defined in terms of trust, belief, obedience and doubtless approach towards the doctor. Data analysis revealed that out of the total respondents who participated in the study, almost half of them had a tendency to easily believe and obey their medical service provider. A significant difference existed between respondents possessing various levels of medical awareness as well as those admitted in hospitals belonging to north, central and south Kerala in respect of their credulousness, from the results of one-way ANOVA. Multiple comparisons using Tukey HSD tests revealed that the true differences prevailed between respondents possessing medium awareness and high unawareness about the diagnostic and therapeutic procedures as well as between those who were admitted in hospitals belonging to south Kerala from those in north and central Kerala. A statistically significant difference was observed between respondents belonging to various age groups, educational and occupational levels, marital status and those admitted in different types of hospitals belonging to different regions of Kerala in respect of patient credulousness.

Keywords: non-complainers, trust, obedience, medical awareness

1. INTRODUCTION

Credulousness as a variable to explain the characteristics of an 'inexperienced consumer' have been quoted in the literature pertaining to consumer protection of western consumer markets (The Consumer Protection Handbook, USA 2004). The Canadian Supreme Court (2012) defined the credulous consumer as "an ordinary, hurried purchaser, who is not particularly experienced at detecting falsehoods or subtleties found

in commercial representations". An average level of skepticism, curiosity and intelligence defines the reasonable consumer. Adopting these characteristics to a credence service like health care, it was pertinent to see whether any significant relation existed between patient credulousness and complaining behavior. As patients have a tendency to believe their health service provider too readily, there are chances of being easily deceived. Hence, it was pertinent to analyze the intensity of patient credulousness in this study. A 5-item scale was developed to measure the patient credulousness.

Phau & Sari (2004) defined non-complainers as those who do not take any action or only involve in private actions like being silent, exiting and engaging in negative word-of-mouth. The findings were based on their Consumer Complaining Behavior (CCB) studies in Indonesia. They defined complainers as those who opted for private or public actions. Hence the fundamental distinction between complainers and non-complainers, as described by them, was the public action. This distinction as described by Hirschman (1970) and later studied by Andreasen (1985) and Singh (1991) does acknowledge the market situations. Consumer reaction to a dissatisfying episode depends on the easy availability of alternatives. Staying silently loyal or engaging in negative word-of-mouth would be the likely consumer reaction in a monopolistic situation where only a small amount of competition exists. Hirschman's studies had not considered this option. Tronvoll (2007) observed that in such cases voicing was not plausible and exiting was impractical because of limited choices. In a hospital scenario, exiting would not be a possible option as easy as other services, at least for some, because of the impracticality in shifting hospital records while undergoing a treatment and the apprehension of getting still worse service comparatively.

Khadir, Swamynathan & Ali (2016) investigated the antecedents of inpatient complaining behaviour and identified four factors using factor analysis, namely, hospitality & cordiality, patient care & concern, amenities and technical competence. From extant literature on complaining motives, the reasons found by various researchers are perceived costs (Richins 1982), attributions (Folkes 1984), prior knowledge (Day 1984), probability of complaint success (Day 1984 and Richins 1983), significance of the event that ended up in dissatisfaction (Day 1984), attitudes towards complaining (Richins 1982), assertiveness (Richins 1983), product importance (Richins 1983) and demographic and environmental influences (Singh &Wilkes 1996).

Complaining customers and non-complaining customers were differentiated by Heung & Lam (2003) on the basis of several reasons. They found that the motives for complaining include seeking redress, apology or compensation, requesting corrective action and expressing emotional anger. Voorhees et al (2006) studied the non-complaining behavior and found that customers may not complain because of reasons like late realization of the failure, consumer loyalty, firm's reputation for quality, internal attributions, social factors

like too busy to complain and presence of friends, alternative action of brand switching etc. Some dissatisfied customers may not complain directly to the service provider. Their reasons were found as complaining was not worth the time and effort, or they did not know where or how to complain or they believed that nothing would be done even if they complained at all (Day et al 1981, Gursoy et al 2007, Richins 1983).

Blodgett et al (1993, 1995) and Singh (1990) explored the hesitant nature of dissatisfied customers to complain and established that perceived likelihood of success, consumers' attitude towards complaining, service importance, stability and controllability of the incident etc. might dissuade them from complaining. However, their studies did not touch upon the characteristics of the consumers that caused this dissuasion. Tax & Brown (1998) identified some non-complainers as people who felt that it was a time-consuming exercise. For Lovelock (2007), Tax &Brown (1998) and Hart et al (1990), the deterrents of complaining were either lack of knowledge about where and how to complain or sheer feeling of embarrassment in attracting others' attention while complaining.

A survey by Khadir & Swamynathan (2014) on deterrents of complaining behaviour of inpatients revealed the apprehension of not receiving any positive outcome after complaining to be the most frequently quoted reason for non-complaining. While some feared their act of complaining would lead to conflict creation, others reported lack of confidence in fighting against an establishment. Davidow & Dacin (1997) identified four major categories of reasons for non-complaining behaviors. They were personality variables (fear of confrontation), traditional cost/benefit variables (past experience), situational variables (social pressure, time, mood) and social-benefit variables.

Stephens & Gwinner (1998) explored several studies from the 1970s and observed that about two-thirds of customers do not report their dissatisfaction. They noted that non-complaining customers were a real trouble to the management as they deprived the firm from an opportunity to solve any problems and improve quality of their offering through customer feedback. Moreover, there are chances that the reputation of the firm may get affected too because of negative word-of-mouth. According to them, a dissatisfied customer may either take action or stay silent. Based on various studies, Nyer (2000) argued that encouraging the dissatisfied customers to complain is beneficial to the firms. Khadir (2013) reported 'double deviation scenarios' where complaint was once reported and service recovery not done properly which made the customer dissatisfied twice.

As far as the cost/benefit variables (time vs. effort), possible costs of complaining behavior are economic costs of conveying problems to firm, uncomfortable, embarrassing, stressful, irritating company activities

and employee behaviors about the complaining process and so on. There may be costs like necessity of long travels, long and strict procedures and possibility of maltreatments etc. (Singh &Wilkes 1996). Some consumers fall under the category of vulnerable or disadvantaged consumers due to these personality stereotypes. They are economically and socially underprivileged who dwell in remote rural areas with inherent restrictions on choice and mobility. Their inability or perceived inability to find equally viable alternatives, without incurring heavy transaction costs, discourage them from creating any displeasure by voicing to the sellers or service providers. Beliefs and expectations of customers about firm and personnel are also closely related with the complaining tendency (Oh 2004). To summarize, customer compares the expected gains that obtained from firm and employees (redress, apologize, better goods in future) with time, emotional, opportunity costs (East 1996) and making complaining decision.

2. OBJECTIVES

i. To analyse the relation of inpatient credulousness with their socioeconomic and demographic variables
ii. To study the relation that patient credulousness has with patient action post dissatisfaction
iii. To find whether there is any association between credulousness and zone to which the hospital in which they were admitted belongs, say North, Central and South Kerala
iv. To find whether there is any association between credulousness and patient's medical awareness
v. To examine the relation between inpatient credulousness and nature of hospital in which they are admitted, say, private and cooperative

3. HYPOTHESIS

H_1: There is significant difference between respondents possessing various levels of medical awareness in respect of their credulousness

H_2: There is a significant difference between respondents admitted in hospitals belonging to Northern, Central and Southern Kerala in respect of levels of credulousness

H_3: There is a significant difference between respondents with various lengths of hospital stay (LOS) in respect of levels of perceived disempowerment

H_4: There is a significant difference between complainers and non-complainers in respect of levels of credulousness

H_5: There is a significant difference between respondents who had undergone surgery and who had not undergone surgery in respect of levels of credulousness

H_6: There is a significant difference between male and female respondents in respect of levels of credulousness

H_7: There is a significant difference between respondents of various age groups in respect of levels of credulousness

H_8: There is a significant difference between respondents holding different levels of educational qualification in respect of levels of credulousness

H_9: There is a significant difference among the diverse occupation holders in respect of levels of credulousness

H_{10}: There is a significant difference between respondents belonging to different financial status in respect of levels of credulousness

H_{11}: There is a significant difference between respondents belonging to different religious backgrounds in respect of levels of credulousness

H_{12}: There is a significant difference between respondents belonging to different marital status in respect of levels of credulousness

H_{13}: There is a significant difference between respondents belonging to urban, semi urban and rural areas in respect of levels of credulousness

H_{14}: There is a significant difference between respondents admitted in private and cooperative hospitals in respect of levels of perceived disempowerment

4. METHODOLOGY

This study is exploratory in nature and aims at finding the credulousness of inaptients which dissuade them from complaining post dissatisfaction. The population of the study was the patients or their bystanders who had availed various services of any private or cooperative hospital in Kerala during their stay and dissatisfied with any of these services. This is a post purchase study and data was collected during the 0-6 months of their discharge from the hospital. The sampling technique followed was probability sampling. The data collection tool was structured and self-administered questionnaire gathered from the sampled nine districts of Kerala.

Questions regarding location of the hospital, nature of the hospital (whether private or cooperative), number of days of stay as inpatient, whether the patient had undergone any surgery during the stay and their self-assessment of medical awareness were asked. In addition, data pertaining to eight socio-economic and demographic variables were also collected. The private and cooperative hospitals with at least 100 beds were considered in the final sample. For this study, the entire state of Kerala was divided into three zones viz. North, Central and South Kerala. Out of the 14 districts in Kerala, nine districts were considered, three each from three zones.

The sample size was 405, with almost equal distribution from the three zones. Out of the 405 questionnaires distributed, only 353 were found useful as the rest 52 were returned because those respondents were either not dissatisfied with any of the hospital services or not available (death, not able to locate or outstation) or non-response after a maximum of three reminder calls. The final sample size was 310 with a response rate of 88 %. The data were analysed with bivariate and multivariate analyses using IBM SPSS 22.0. The statistical tests performed were factor analysis, one-way analysis of variance and chi square tests.

The construct patient credulousness was measured with a 5-point Likert scale anchored at the end points with ‘strongly agree/ strongly disagree’ with ‘neither agree nor disagree’ anchoring the middle position. As a result of performing phenomenological research (Lester 1999) and incorporating expert opinion, this scale was developed as relevant measurement scales in the area of credulousness was lacking. This scale had the following items:

i. Patients should trust their doctor completely

ii. Patients should not have doubt about medicines or treatment

iii. It is the duty of patients to obey physicians and abide by what he/she says

iv. Doctors generally do not make incorrect diagnosis, treatment or prescriptions because they are educated and experienced

v. If something goes wrong to us, we should consider it as our fate

5. RESULTS

4.1 Scale on patient credulousness

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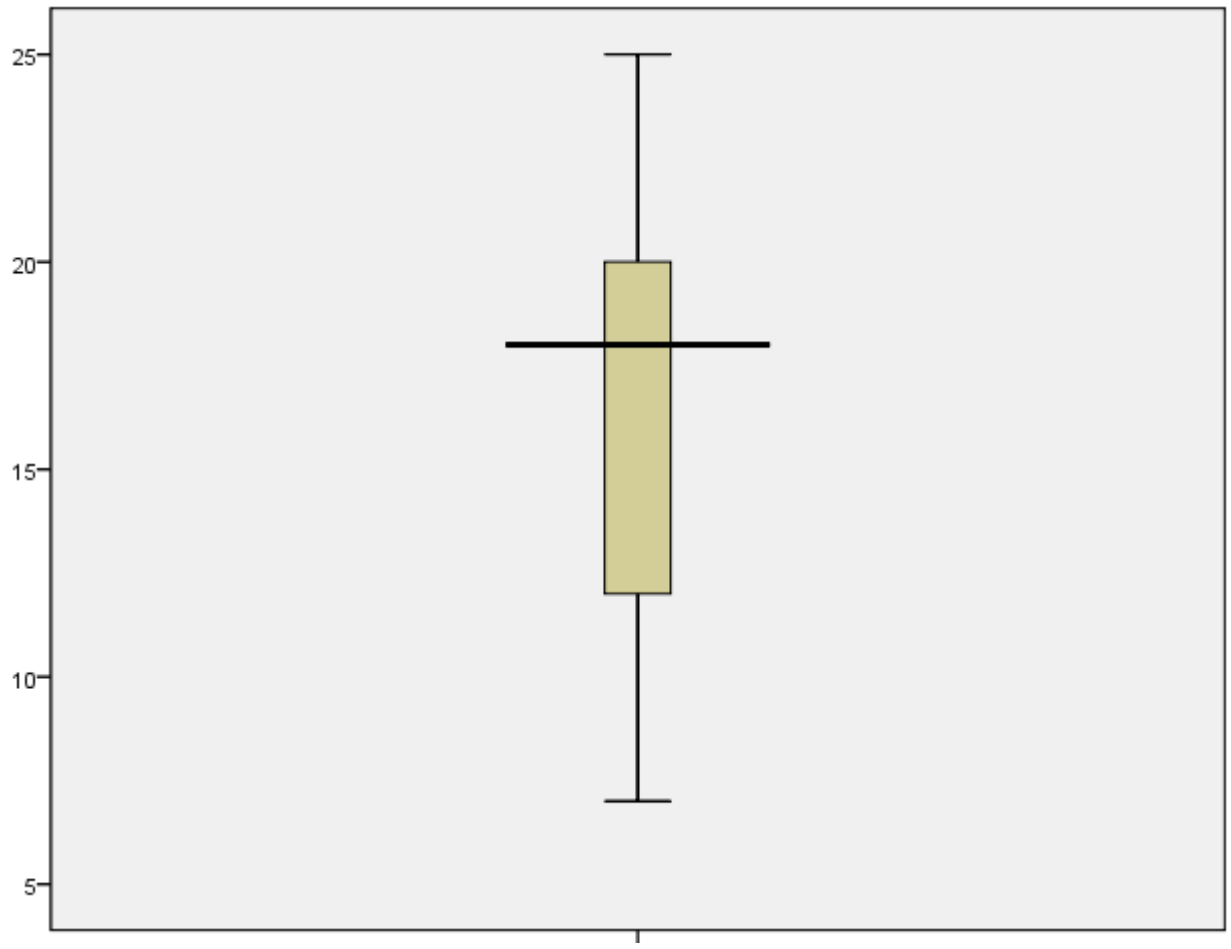
This section deals with the details of the scale constructed for measuring credulousness. The box plot of the scale is given in figure 4.1.

Figure 4.1 Box Plot of patient credulousness scale



The possible range of summated scores for this scale is 5-25. The level of credulousness increases as the score approaches from the minimum to the maximum value. The summated score on the five items comprising the scale was calculated for each respondent. The respondents were divided into 3 classes based on their summated scores. Those who had a total score ranging between 5 and 12 were categorized as 'highly incredulous', those between 13 and 18 as 'moderately credulous' and those between 19 and 25 as 'highly credulous'. The frequency table showing the distribution of respondents in each category is shown in Table 4.1.

Table 4.1 Distribution of respondents based on their levels of credulousness

Levels of patient credulousness	Frequency	Percent

1 Highly incredulous (5-12)	84	26.9
2 Moderately credulous (13-18)	91	29.2
3 Highly credulous (19-25)	137	43.9
Total	312	100.0

It is clear from the table that a little less than one-half of the respondents (43.9 per cent) are highly credulous whereas a little more than one-quarter of the respondents belonged to the moderately credulous (29.2 per cent) and highly incredulous categories (26.9 per cent). Hence, we can conclude that out of the total respondents who participated in the study, almost half of them had a tendency to easily believe their medical provider.

The scale had Cronbach alpha value of 0.928. For better reliability, the scale was reworded and pretested more than once.

Table 4.2 Reliability statistics

Cronbach's Alpha value of credulousness scale	N of Items
.928	5

Table 4.3 illustrates the descriptive statistics of the five items under the patient credulousness scale.

Table 4.3 Descriptive statistics of items under patient credulousness

ITEMS	N	Mean		SD
	Statistic	Statistic	SE	Statistic
Patients should trust their doctor completely	311	2.14	.069	1.213
Patients should not have doubt about medicines or treatment	311	2.52	.079	1.393
It is the duty of patients to obey physicians and abide by what they say	311	2.17	.074	1.300

Doctors generally do not make incorrect diagnosis, treatment or prescriptions because they are educated and experienced	311	2.53	.076	1.346
If something goes wrong to us, we should consider it as our fate	311	2.86	.087	1.541
Total valid	311			

The mean value of each item in the Table 4.3 is less than 3 which indicates that the respondents reported agreement to the statements depicting their higher levels of credulousness. Two items, namely, patient perception that they should trust and obey their doctor completely showed the lowest mean value explaining the reason why this study had more number of non-complainers when compared to the overt complainers.

4.2 Testing of hypotheses

This section deals with the data analysis and interpretation relating to the hypotheses stated earlier.

H_1: There is significant difference between respondents possessing various levels of medical awareness in respect of their credulousness

H_2: There is significant difference between respondents admitted in hospitals belonging to various zones of Kerala in respect of their credulousness.

A one-way analysis of variance (ANOVA) was performed to test this hypothesis as shown in Table 4.4 (a).

Table 4.4 (a) Credulousness vs. medical awareness and zone of hospital (One-way ANOVA)

Patient's medical awareness		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Patient credulousness	Between Groups	19.046	3	6.349	4.868	.003
	Within Groups	400.359	307	1.304		
	Total	419.405	310			
Zone to which the hospital belongs						
Patient credulousness	Between Groups	22.382	2	11.191	8.682	.000
	Within Groups	397.024	308	1.289		

	Total	419.405	310			

The differences were statistically significant with F(3, 307) = 4.868, p = 0.003 for medical awareness and F(2, 308) = 8.682, p = 0.00 for zone of hospital. As the p value is lesser than the significance level, we state that there is evidence to retain the hypothesis and hence there is a significant difference between respondents possessing various levels of medical awareness in respect of their credulousness.

We also state that there is evidence to retain the hypothesis and hence there is a significant difference between respondents admitted in hospitals belonging to north, central and south Kerala in respect of patient credulousness.

Tukey HSD post hoc tests were performed for listing pair-wise comparisons as shown in Table 4.4 (b).

Table 4.4 (b) Multiple comparisons

Credulousness vs. Patient's medical awareness					
Dependent Variable	**(I) Patient medical awareness**	**(J) Patient medical awareness**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
H_6: **Patient Credulousness**	Not at all aware	Somewhat aware	-.4113	.17725	.096
		Highly aware	-.1027	.25753	.978
	Somewhat aware	Not at all aware	.4113	.17725	.096
		Highly aware	.3086	.21587	.482
	Highly aware	Not at all aware	.1027	.25753	.978
		Somewhat aware	-.3086	.21587	.482
Credulousness vs. Zone to which hospital belongs					
Dependent Variable	**(I) Zone to which hospital belongs**	**(J) Zone to which hospital belongs**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
H_7: **Patient Credulousness**	North	Central	-.2286	.15323	.296
		South	.4285(*)	.16994	.033
	Central	North	.2286	.15323	.296
		South	.6571(*)	.15789	.000
	South	North	-.4285(*)	.16994	.033

		Central	-.6571(*)	.15789	.000

Multiple comparisons using Tukey HSD tests in order to assess further differences amongst groups, revealed that the true differences was between respondents who were 'somewhat aware' and 'not at all aware' (p = 0.096) about the diagnostic and therapeutic procedures.

Multiple comparisons using Tukey HSD tests revealed that the respondents who were admitted in hospitals belonging to south Kerala had a mean credulousness level that was significantly higher than that for the other two groups and were different from those admitted in hospitals belonging to north (p = 0.033) and central (p = 0.000) Kerala. Hence, these two groups did not differ from each other when compared pair-wise.

In order to test whether the significant difference is because of the sub groups, homogeneous subset table of ANOVA Tukey HSD is been analyzed in Table 4.5.

Table 4.5 (a) Post Hoc tests-Tukey homogenous subsets- Differentiation in each awareness level

Credulousness &patient medical awareness	**N**	**Subset for alpha = .05**	
		1	2
Not at all Aware	51	2.1098	
Highly Aware	32	2.2125	
Somewhat Aware	223	2.5211	

Means for groups in homogeneous subsets are displayed.

The table 4.5 (a) lists homogenous sets or groups that did not differ using alpha = 0.05. It can be observed from the homogenous subsets table that the respondents belonging to the three groups, namely, 'highly aware', 'not at all aware' and 'somewhat aware' did not differ from each other in respect of patient credulousness.

Table 4.5(b) Post Hoc tests –Tukey homogenous subsets-
Differentiation in each zone of hospital

Zone to which the hospital belongs	N	Subset for alpha = .05	
		1	2
South	85	2.0353	
North	94		2.4638
Central	132		2.6924
Sig.		1.000	.330

Means for groups in homogeneous subsets are displayed

The table 4.5 (b) lists groups that did not differ using alpha = 0.05. It can be observed from the homogenous subsets table that the respondents admitted to hospitals belonging to south Kerala differed significantly from north and central Kerala in respect of credulousness and hence listed separately in the table.

Figure 4.2 shows the mean plot of zone where the hospital belongs in the X-axis and mean of credulousness on the y-axis.

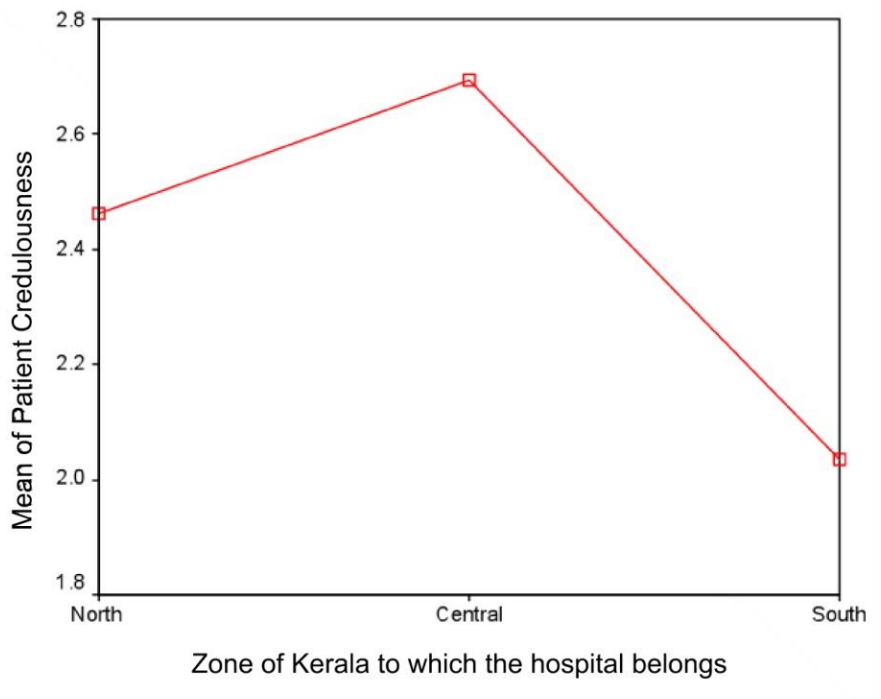


Figure 4.2 Means plots – Patient credulousness vs. Zone of hospital

The figure explains the difference that the respondents admitted in the hospitals belonging to north and central Kerala exhibit in respect of credulousness when compared to those in south Kerala.

H_3: There is significant difference between respondents with different durations of hospital stay in respect of their credulousness

A one-way analysis of variance (ANOVA) was performed to test this hypothesis as shown in Table 4.6.

Table 4.6 Credulousness vs. length of stay (One-way ANOVA)

Length of inpatient stay		Sum of Squares	df	Mean Square	F	Sig.
Patient credulousness	Between Groups	9.475	19	.499	.832	.668
	Within Groups	174.467	291	.600		
	Total	183.942	310			

The differences were not significant with p = 0.668. As the p value is higher than the significance level, there is no evidence to retain the hypothesis and hence there is no true difference between respondents with various durations of hospital stay in respect of their credulousness.

H_4: There is significant difference between complaining and non-complaining inpatients in respect of their credulousness

A one-way analysis of variance (ANOVA) was performed to test this hypothesis as shown in Table 4.7.

Table 4.7 Credulousness vs. patient action post dissatisfaction (One-way ANOVA)

Patient action post dissatisfaction		Sum of Squares	df	Mean Square	F	Sig.
Patient credulousness	Between Groups	5.265	19	.277	1.628	.049
	Within Groups	49.526	291	.170		

	Total	54.791	310			

The differences were statistically significant with F(19, 291) = 1.628, p = 0.049. As the p value is lesser than the significance level, we state that there is evidence to retain the hypothesis and hence there is a significant difference between complaining and non-complaining inpatients in respect of their credulousness.

H_5: There is significant difference between inpatients who had undergone surgery and who had not undergone surgery in respect of their credulousness

A one-way analysis of variance (ANOVA) was performed to test this hypothesis as shown in Table 4.8.

Table 4.8 Credulousness vs. surgery undergone (One-way ANOVA)

Surgery undergone		Sum of Squares	df	Mean Square	F	Sig.
Patient credulousness	Between Groups	10.727	19	.565	.783	.727
	Within Groups	209.839	291	.721		
	Total	220.566	310			

The differences were not significant with p = 0.727. As the p value is higher than the significance level, there is no evidence to retain the hypothesis and hence there is no true difference between inpatients who had undergone surgery and those who had not, in respect of their credulousness.

H_6: There is a significant difference between male and female respondents in respect of levels of patient credulousness

Tables 4.9.1 and 4.9.2 respectively show the group statistics of gender and independent samples t- test to determine the difference.

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Table 4.9.1 Group Statistics of gender

Gender of the Respondent	N	Mean	Std. Deviation	Std. Error Mean
Male	184	16.85	4.577	.337
Female	119	17.01	4.955	.454

Table 4.9.1 depicts the between male and female respondents in respect of levels of patient credulousness.

Table 4.9.2 Gender vs. Credulousness (Independent Samples t-Test)

Levels of Patient Credulousness	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	SE Difference	F	95 % CI of the Difference	
									Lower	Lower
Equal variances assumed	1.743	.188	-.279	301	.781	-.155	.556	-1.250	.939	
Equal variances not assumed			-.274	237.515	.784	-.155	.566	-1.270	.960	

There was no significant difference between the scores for male (M=16.85, SD=4.577) and female (M=17.01, SD=4.955) respondents; t (301) = -0.279, p = 0.781. These results suggest that gender really does not have an effect on patient credulousness. The p value is greater than the predetermined level of significance (0.05). Hence we reject the hypothesis as the analysis did not detect any difference between male and female in respect of patient credulousness.

H_7: There is a significant difference between respondents from various age groups in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.10.1 shows the mean rank of each age category.

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Table 4.10.1 Mean Rank of each age category

Age(in Completed Years)	N	Mean Rank
20 to 29 Years	140	135.65
30 to 39 Years	79	172.47
40 to 49 Years	40	158.55
50 to 59 Years	22	149.68
Above 60 years	17	135.26
Total	298	

The table shows age-wise number of participants and their mean rank. Table 4.10.2 depicts the test statistics to determine whether respondents belonging to various age groups differed in their credulousness level.

Table 4.10.2 Age vs. Levels of Patient Credulousness (Test Statistics[a,b])

	Categories
Chi-Square	11.688
Df	4
Asymp. Sig.	.020

a. Kruskal Wallis Test

b. Grouping Variable: Age(in Completed Years)

A Kruskal Wallis H test showed that there was a statistically significant difference in patient credulousness between the different age groups X^2 (4) = 11.688, p= 0.02, with a mean rank credulousness score as shown in Table 4.77. As the p value is lesser than the significance level, we retain the hypothesis. Therefore, we have evidence to state that there is a statistically significant difference between respondents of various age groups in respect of levels of patient credulousness.

H_8: There is a significant difference between respondents holding various educational qualifications in respect of levels of patient credulousness

Kruskal-Wallis Test was used as the tool for analysis. Table 4.11.1 shows the mean rank of each education category.

Table 4.11.1 Mean Rank of categories of educational qualification

Education of the Respondent	N	Mean Rank
Literate	24	162.50
School up to fifth standard	13	190.19
School from 6-9th standard	12	164.58
SSLC/HSC	71	182.75
Graduate	85	140.06
Post graduate	49	118.32
Professional	52	152.79
Total	306	

Table 4.11.2 depicts the test statistics to determine whether respondents holding various levels of education differed in their credulousness level.

Table 4.11.2 Education vs. credulousness levels (Test Statistics[a,b])

	Categories
Chi-Square	23.114
Df	6
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: Education of the Respondent

A Kruskal Wallis H test showed that there was a statistically significant difference between respondents holding different educational qualifications in respect of patient credulousness, X^2 (6) = 23.114, p= 0.001, with a mean rank credulousness score as shown in Table 4.11.2. As p value is lesser than the significance level, we retain the hypothesis. Therefore, we have evidence to state that there is a statistically significant difference between respondents from different educational backgrounds in respect of levels of patient credulousness.

H_9: There is a significant difference between respondents holding different levels of occupation in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.12.1 shows the mean rank of each occupational category.

Table 4.12.1 Mean Rank of occupation of the respondent

Occupation of the Respondent	N	Mean Rank
Wage labourer	29	178.03
Self employed	65	158.88
Service – government or private	82	173.61
Retired	16	123.56
Unemployed	101	131.34
Others	12	141.38
Total	305	

Table 4.12.2 depicts the test statistics to determine whether respondents from various occupational backgrounds differed in their credulousness level.

Table 4.12.2 Occupation vs. levels of patient credulousness (Test Statistics[a,b])

	Categories
Chi-Square	17.438
Df	5
Asymp. Sig.	.004

a. Kruskal Wallis Test

b. Grouping Variable: Occupation of the Respondent

A Kruskal Wallis H test showed that there was a statistically significant difference in patient credulousness between the respondents holding different occupations X^2 (5) = 17.438, p= 0.004, with a mean rank credulousness score as shown in Table 4.12.1. As the p value is lesser than the significance level, we retain the hypothesis. Therefore, we have evidence to state that there is a significant difference between respondents belonging to different occupational backgrounds in respect of levels of patient credulousness.

H_{10}: There is a significant difference between respondents belonging to different financial status in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.13.1 shows the mean rank of each category of financial status.

Table 4.13.1 Mean rank of various categories of financial status

Financial Status of the Respondent	N	Mean Rank
Others	22	157.23

Middle class	232	149.83
Poor	26	177.65
Below Poverty Line	27	164.39
Total	307	

Table 4.13.2 depicts the test statistics to determine whether various financial status differed in their credulousness level.

Table 4.13.2 Financial status vs. credulousness levels (Test Statistics[a,b])

	Categories
Chi-Square	3.161
Df	3
Asymp. Sig.	.368

a. Kruskal Wallis Test

b. Grouping Variable: Financial Status of the Respondent

A Kruskal Wallis H test showed that there was no statistically significant difference in patient credulousness between the respondents belonging to different financial status X^2 (3) = 3.161, p= 0.368, with a mean rank credulousness score as shown in Table 4.13.2. The p value is higher than the significance level. Therefore, we have evidence to state that there is no true difference between respondents belonging to various financial status in respect of levels of patient credulousness.

H_{11}: There is a significant difference between respondents belonging to different religions in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.14.1 shows the mean rank of each religious category.

Table 4.14.1 Mean Rank of various categories of religion

Religion of the Respondent	N	Mean Rank
Hindu	125	160.46
Muslim	75	146.61
Christian	92	154.84
Prefer not to respond	18	161.47
Total	310	

Table 4.14.2 depicts the test statistics to determine whether various religious groups differed in their credulousness level.

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Table 4.14.2 Religion vs. Levels of patient credulousness (Test Statistics[a,b])

	Categories
Chi-Square	1.385
Df	3
Asymp. Sig.	.709

a. Kruskal Wallis Test
b.Grouping Variable: Religion of the Respondent

A Kruskal Wallis H test showed that there was no difference in patient credulousness between the respondents from different religious categories X^2 (3) = 1.385, p= 0.709, with a mean rank credulousness score as shown in Table 4.14.1. The p value is greater than the significance level. Therefore, we have evidence to state that there is no true difference between respondents belonging to various religious backgrounds in respect of levels of patient credulousness.

H_{12}: There is a significant difference between respondents with different marital status in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.15.1 shows the mean rank of each marital status category.

Table 4.15.1 Mean Rank of various categories of marital status

Marital Status of the Respondent	N	Mean Rank
Never Married	115	137.56
Married	170	167.73
Divorced	4	136.00
Living Separately	3	109.17
Prefer not to respond	18	166.67
Total	310	

Table 4.15.2 depicts the test statistics to determine whether various marital status groups differed in their credulousness level.

Table 4.15.2 Marital status vs. Levels of patient credulousness levels (Test Statistics[a,b])

Test	Categories
Chi-Square	10.378
Df	4
Asymp. Sig.	.035

a. Kruskal Wallis Test

b. Grouping Variable: Marital Status of the Respondent

A Kruskal Wallis H test showed that there was a statistically significant difference in patient credulousness between the respondents with different marital status X^2 (4) = 10.378, p= 0.035, with a mean rank credulousness score as shown in Table 4.15.2. The p value is lesser than the significance level. Therefore, we have evidence to state that there is a significant difference between respondents having different marital status in respect of levels of patient credulousness.

H_{13}: There is a significant difference between respondents belonging to different places of residence in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.16.1 shows the mean rank of each category of place of residence.

Table 4.16.1 Mean Rank of each category of place of residence

Nature of Place of Residence	N	Mean Rank
Urban	90	148.66
Semi-Urban	113	156.93
Rural	106	158.33
Total	309	

Table 4.16.2 depicts the test statistics to determine whether respondents belonging to various places of residence differed in their credulousness level.

Table 4.16.2 Nature of place of residence vs. Levels of patient credulousness (Test Statistics[a,b])

Test	Categories
Chi-Square	.752
Df	2
Asymp. Sig.	.687

a. Kruskal Wallis Test

b. Grouping Variable: Nature of Place of Residence

A Kruskal Wallis H test showed that there was no significant difference in patient credulousness between the different respondent groups based on the nature of place of stay, X^2 (2) = 0.752, p= 0.687, with a mean rank credulousness score as shown in Table 4.16.1. As the p value is higher than the significance level, we reject the hypothesis. Therefore, we have evidence to state that there is no true difference between respondents belonging to urban, semi urban and rural areas in respect of levels of patient credulousness.

H_{14}: There is a significant difference between respondents admitted in private and cooperative hospitals in respect of levels of patient credulousness

Kruskal-Wallis H test was used as the tool for analysis. Table 4.17.1 shows the mean rank of each hospital category.

Table 4.17.1 Mean Rank of the two categories of hospital

Nature of the hospital in which the patient was admitted	N	Mean Rank
Private hospital	240	150.44
Cooperative hospital	72	176.69
Total	312	

Table 4.17.2 illustrates the test statistics to determine whether respondents admitted in private and cooperative hospitals differed in their credulousness level.

Table 4.17.2 Nature of hospital vs. Levels of patient credulousness (Test Statistics[a,b])

Test	Categories
Chi-Square	5.381
Df	1
Asymp. Sig.	.020

a. Kruskal Wallis Test

b. Grouping Variable: Nature of the hospital in which the patient was admitted

A Kruskal Wallis H test showed that there was a statistically significant difference in patient credulousness between the respondents admitted to different hospital categories, X^2 (1) = 5.381, p= 0.02, with a mean rank credulousness score of 150.44 for private hospitals and 176.69 for cooperative hospitals. As the p value is lesser than the significance level, we retain the hypothesis. Therefore, we have evidence to state that there is a significant difference between patients admitted to private and cooperative hospitals in respect of levels of patient credulousness.

The results of all the hypotheses tests are summarized in Table 4.18.

Table 4.18 Consolidated results of hypothesis based on patient credulousness

Hypotheses Sl. No.	Independent variable	Test performed	Sig. (p value)	Decision
H_1	Medical awareness of the patient	One-way ANOVA	0.003	Retain the

				hypothesis
H_2	Zone to which the hospital belongs	One-way ANOVA	0.000	Retain the hypothesis
H_3	Length of hospital stay	One-way ANOVA	0.668	Reject the hypothesis
H_4	Patient action post dissatisfaction	One-way ANOVA	0.049	Retain the hypothesis
H_5	Surgery undergone	One-way ANOVA	0.727	Reject the hypothesis
H_6	Gender of the patient	Independent samples t-test	0.781	Reject the hypothesis
H_7	Patient age	Kruskal-Wallis H test	.020	Retain the hypothesis
H_8	Patient education	Kruskal-Wallis H test	.001	Retain the hypothesis
H_9	Patient occupation	Kruskal-Wallis H test	.004	Retain the hypothesis
H_{10}	Patient financial status	Kruskal-Wallis H test	.368	Reject the hypothesis
H_{11}	Patient religion	Kruskal-Wallis H test	.709	Reject the hypothesis
H_{12}	Patient marital status	Kruskal-Wallis H test	.035	Retain the hypothesis
H_{13}	Place of stay	Kruskal-Wallis H test	.687	Reject the hypothesis
H_{14}	Nature of hospital	Kruskal-Wallis H test	.020	Retain the hypothesis

Dependent variable: Levels of patient credulousness

A statistically significant difference was observed between respondents belonging to various age groups, educational and occupational levels, marital status and with varying levels of medical awareness and those admitted in different types of hospitals belonging to different regions of Kerala in respect of patient credulousness. However, there was no true difference between respondents based on gender, financial status, religion and nature of place of stay in respect of patient credulousness.

6. DISCUSSION

Patient credulousness could be a result of situational, health-related or demographic variables. The fact that almost one-half of the respondents who participated in the survey exhibited higher levels of credulousness is valid information to the management of hospitals. A study in which majority of the respondents have expressed high levels of credulousness might have significant implications for the management. That means, the higher the patient credulousness, the more will be their covert complaining behavior. Hospitals need to be careful about this because they may never know whether a patient is dissatisfied and wants to complain. Overt complainers are a boon to the management as they get direct feedback post dissatisfaction and get a second chance to serve the customer through service recovery. Studies have observed that customers who receive better service recovery involving apologies, explanations, offers of compensation and courtesy (Blodgett et al 1997) post complaining are much happier than those who never complained (Bitner 1990).

The meaning of credulousness perse is to trust, believe, obey and be submissive to the provider (in this study, the doctor). When the patients are so willing and obedient, a slight interruption in the services might cause disturbances in their outlook about various aspects of care management. Hospitals need to be alert about this particular mindset of patients, inpatients in particular, and encourage overt complaining behavior by means of suggestion boxes, appointing complaint handling teams or developing complaint databases.

A significant difference in the credulousness levels of respondents possessing medium-awareness and unawareness shows that the submissive nature increases when they perceive themselves to possess little knowledge about the diagnostic and therapeutic procedures. In addition, respondents admitted in hospitals belonging to south Kerala were found to possess a different level of credulousness when compared to their northern and central counterparts. Hence, these hospitals may devise measures to encourage overt complaining behavior so that they realize the reasons of dissatisfaction of their inpatients and subsequently devise measures to reduce the same.

7. CONCLUSION

The patient credulousness was measured using a 5-point Likert scale. Upon calculating a summated score of the scale, a little less than one-half of the respondents (43.9 per cent) were highly credulous whereas a little more than one-quarter of the respondents belonged to the moderately credulous (29.2 per cent) and highly incredulous categories (26.9 per cent). Hence, we can conclude that out of the total respondents who participated in the study, almost half of them had a tendency to easily believe and obey their medical service provider.

Upon performing a correlation test to find the relation between credulousness and complaining behavior, a significant positive correlation was found between the two variables. There was evidence to state that a

significant difference existed between respondents possessing various levels of medical awareness in respect of their credulousness, from the results of one-way ANOVA. In addition, a significant difference was found among respondents admitted in hospitals belonging to north, central and south Kerala in respect of patient credulousness. Multiple comparisons using Tukey HSD tests revealed that the true differences prevailed between respondents possessing medium awareness and high unawareness about the diagnostic and therapeutic procedures as well as between those who were admitted in hospitals belonging to south Kerala from those in north and central Kerala.

8. RECOMMENDATIONS

Health care sector in general and hospitals in particular should try to understand the level of credulousness of the patients. Customer categorization may be done by formulating some mechanism and customer relation strategies should be devised to serve each category better. Measures may also be taken in educating the customers, especially patients or their bystanders so that they do not get easily deceived by promotional offers of various brands.

9. SCOPE FOR FURTHER RESEARCH

As it has been revealed from the current study that inpatient credulousness exists in higher proportions among inpatients, this may be extended to other service sectors with predominant credence qualities in order to establish whether this holds true outside the health care industry. Another opportunity lies among inpatients sharing similar characteristics in segments namely, geographic areas, psychographic or personality traits. Apart from the service sector, this may be studied across customers of highly technical products where know how is comparatively lesser than the lesser technical ones.

REFERENCES

Andreasen, AR 1985, 'Consumer responses to dissatisfaction in loose monopolies', Journal of Consumer Research, vol.12, no. (September), pp. 135-141.

Bitner, MJ 1990, 'Evaluating service encounters: the effects of physical surroundings and employee responses', Journal of Marketing, vol. 54, no. 2, pp. 69-83.

Blodgett, JG, Granbois, DH & Walters, RG 1993, 'The effects of perceived justice on complainants' negative word-of-mouth behavior and repatronage intentions', Journal of Retailing, vol. 69, no. 4, pp. 399-428.

Blodgett, JG, Hill, DJ & Tax, SS 1997, 'The effects of distributive, procedural and interactional justice on post-complaint behavior', Journal of Retailing, vol. 73, no. 2, pp. 185-210.

Blodgett, JG, Wakefield, KL & Barnes, JH 1995, 'The effects of customer service on consumer complaining behavior', Journal of Services Marketing, vol. 9, no. 4, pp. 31-42.

Davidow, M & Dacin, PA 1997, 'Understanding and influencing consumer complaint behavior: improving organizational complaint management', Advances in Consumer Research, vol. 24, pp. 450-456.

Day, RL 1984, 'Modeling choices among alternative responses to dissatisfaction', Advances in Consumer Research, vol. 11, pp. 496-499.

Day, RL, Grabicke K, Schatzle T & Staubach F 1981, 'The hidden agenda of consumer complaining', Journal of Retailing, vol. 57, no. 3, pp. 86-106.

East, R 1996, 'Redress seeking as planned behavior', Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, vol. 9, pp. 27-34.

Folkes, VS 1984, 'Consumer reactions to product failure: an attributional approach', Journal of Consumer Research, vol. 10, no. 4, pp. 398-409.

Gursoy, D, McCleary, KW & Lepisto, LR 2007, 'Propensity to complain: effects of personality and behavioral factors', Journal of Hospitality & Tourism Research, vol. 31, pp. 358.

Hart, CWL, Heskett, JL & Sasser, WE 1990, 'The profitable art of service recovery', Harvard Business Review, July-August, pp. 148-156.

Heung, VCS & Lam, T 2003, 'Customer complaint behavior towards hotel restaurant services', International Journal of Contemporary Hospitality Management, vol. 15, no. 5, pp. 288-289.

Hirschman, AO 1970, Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States', Harvard University Press, Cambridge.

Khadir, F. (2012). Dual failures: a study of double deviation scenarios in the service sector. *International Journal of Consumerism*, *2* (2), 98-111.

Khadir, F., & Swamynathan, R. (2014). Deterrents of complaining: an empirical study of inpatients. *Studies on Ethno-Medicine*, *8* (3), 259-267.

Khadir F, Swamynathan, R & Ali MA, August, 2016, 'Antecedents of Inpatient Complaining Behaviour', *Studies on Ethno-Medicine*, *10* (3), 325-335.

Lester, S 1999, 'An introduction to phenomenological research', Taunton UK, Stan Lester Developments.

Lovelock, C & Wirtz, J 2007, Services Marketing: People, Technology, Strategy, 6th Edition, Pearson Prentice Hall, New Jersey.

Nyer, PU 2000, 'An investigation into whether complaining can cause increased consumer satisfaction', Journal of Consumer Marketing, vol. 17, no. 1, pp. 9-19.

Oh, DG 2004, 'Complaining behavior of academic library users in South Korea', The Journal of Academic Librarianship, vol. 30, no.2, pp. 136-144.

Phau, I & Sari RP 2004, 'Engaging in complaint behavior: an Indonesian perspective', Marketing Intelligence and Planning, vol. 22, no. 4, pp. 407-426.

Richins, ML 1982, 'An investigation of consumers' attitudes toward complaining', Advances in Consumer Research, vol. 9, pp. 502-506.

Richins, ML 1983, 'Negative word-of-mouth by dissatisfied consumers: a pilot study', Journal of Marketing, vol.47, pp. 68-78.

Singh, J & Wilkes, RE 1996, 'When consumers complain: a path analysis of the key triggers of consumer complaint response estimates', Journal of the Academy of Marketing Science, vol. 24, no. 4,
pp. 350-365.

Singh, J 1990, A typology of consumer dissatisfaction response styles', Journal of Retailing, vol. 66, no.1, pp. 57-99.

Singh, J 1991, 'Industry characteristics and consumer dissatisfaction', Journal of Consumer Affairs, vol. 25, no. 1, pp. 19-56.

Stephens, N & Gwinner, KP 1998, 'Why don't some people complain? A cognitive-emotive process model of consumer complaint behavior', Journal of the Academy of Marketing Science, vol. 26, no. 3,
pp. 172-190.

Tax, SS & Brown, SW 1998, 'Recovering and learning from service failure', MIT Sloan Management Review, vol. 40, no.1, pp. 75-88

Tronvoll, B 2007, 'Complainer characteristics when exit is closed', International Journal of Service Industry Management, vol. 18, no. 1, pp. 25-51.

Vorhees, CM, Brady, MK & Horowitz, DM 2006, 'A voice from the silent masses: an exploratory and comparative analysis of noncomplainers', Journal of the Academy of Marketing Science, vol. 34, no. 4, pp. 514-527.